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## LONGEVITY OF A VELVET ANT.

ADELE M. FIELDE.

Finding no printed record concerning length of life in the Mutilidæ, I think there may be value in an observation recently made by me upon a single female of *Spherophthalmia occidentalis*.

She was captured in Arizona early in June, 1905, by Professor Edward S. Morse, of Salem, Mass.; reached my hands on the first day of the ensuing August; and lived under my observation until the twelfth of August, 1906. She was kept by me in a small glass ant-nest of the Fielde pattern, in which I fixed three glass vials whose interior diameter was scarcely greater than that of her own abdomen. Into one of these vials she often crept; and she hibernated there during the winter of 1905-6, at a temperature between 65° and 75° F. Whenever the temperature rose as high as 80° F. she awoke, walked about and perhaps ate from the particle of honeyed sponge-cake that always awaited her in the adjoining compartment of the nest, where there was also a bit of sponge that was kept saturated with clean water. In summer she often sought the more humid part of the nest.

She preferred darkness to light; but, like the formicid ants, she avoided only the ultra-violet rays. When sheltered by an orange pane which excluded the ultra-violet rays, she was manifestly unaware that she was not in complete darkness. Like the formicid ants she appeared to be blind to other than the actinic rays.

When first received by me, she once stung me sharply, but thereafter she became acquainted with my hand, seemed to greatly enjoy walking about upon it, and never left it willingly except to enter her nest.

I never heard her stridulate when in the nest; but whenever I enclosed her in the warm darkness of my fist, she sounded her charming, harmonious notes, representing but two keys. Probably each key was determined by one of the two overlapping sclerites on the top of the abdomen. Great variation in the



rapidity of the muscular contraction produced at different times an effect like that of playing different tunes on a minute stringed instrument. The sound was sometimes audible at a distance of one yard; but it was much more often audible only when the fist inclosing the insect was in contact with the ear. Occasionally she stridulated continuously for as long a time as three or four minutes.

It is probable that this velvet ant lived at least three summers. The tendency to hibernate in a snug, arid cell, at temperatures below 75° F., makes it unlikely that her progenitors had reared her in the summer in which she was captured. She must, then, have been hatched as early as the summer of 1904. Her existence was probably shortened by an unnatural environment. My observation of this specimen therefore indicates that the female of the velvet ant may live several years.